Will Sixth Wave's fast and accurate breathalyzer revolutionize global pathogenic virus testing?

written by InvestorNews | January 20, 2022

I'm hopeful that we will soon see this whole COVID issue become an endemic as opposed to a pandemic, and life as we know it, can return to something a lot more like it was before this annoying virus became the bane of our existence. Whether continued mutation of the virus allows us to get on with life or not, we need to be better prepared for the future, so we can get a handle on things sooner and keep the economy rolling, keep the kids in school and get rid of this whole division of society over masking and vaccinations. I've suggested in past articles that, in my opinion, effective, reliable rapid testing could go a long way to resolving this, and any potential future viruses that come along. However, after getting my hands on the current generation of rapid tests and using them a few times to visit family and friends over the Holiday Season, I find it necessary to add one more descriptor – convenient. I actually stopped going out because the thought of jamming that swab up my nose again brings tears to my eyes and a bit of a queasy feeling.

But what if I told you there is a company out there that is on its way to developing a rapid breathalyzer test that can identify COVID and potentially many other viruses. I know it has certainly caught my attention. Sixth Wave Innovations Inc. (CSE: SIXW | OTCQB: SIXWF) utilizes unique applications of nanotechnology called Molecularly Imprinted Polymers (MIPs) for imprinting, capturing, and releasing substances at the molecular

level. The technology has applications in multiple areas with a current focus on the recovery of gold, explosives detection, metabolite extraction and medical diagnostics for viruses. Sixth Wave can design, develop and commercialize MIP solutions across a broad spectrum of industries. The company is focused on nanotechnology architectures that are highly relevant for the detection and separation of viruses, biogenic amines, and other pathogens, for which the Company has products at various stages of development.

I'll try to briefly explain how this works without getting into too many hard-core science details given it's mostly over my head. Viruses have unique chemical profiles that result in different shape, size, and surface chemistry characteristics. Sixth Wave designs polymerizable ligands specifically to take advantage of the size, shape and surface chemistry of a target virus or target class of virus to achieve selectivity and sensitivity in diagnostic applications.

Source: Sixth Wave Innovations Inc. Corporate Presentation

They say a picture is worth a thousand words, but I suspect the diagram above would be a lot more than that if I could properly explain it. My simple analogy is that you build a puzzle with one specific piece missing and the only puzzle piece that will fit in that spot is the COVID-19 virus (or whatever virus or family of viruses you selected to fit your polymer puzzle). If you have the correct piece of the puzzle, it will indicate a positive result. If that doesn't make sense to you then you can go to the Company's website and do some more digging on your own because that's the best I've got.

Beyond the science, here is where Sixth Wave currently stands in its mission to stem the tide of emerging outbreaks quickly in

order to prevent worldwide pandemics in the future. On December 14th the Company announced it had successfully demonstrated selective binding and detection of live SARS-CoV-2 virus in saliva samples using its patent-pending Accelerated Molecularly Imprinted Polymer (AMIPs™) technology. The next and final stage of laboratory-based development is to expand testing to a standardized panel of respiratory viruses to confirm that there is no cross-reactivity (or false positives as near as I can tell). Completion of the cross-reactivity testing is the last scientific development step required to produce specificity data before the Company can begin the process of applying for regulatory approval from government agencies such as the U.S.'s FDA and Health Canada.

Sixth Wave's technology overcomes problems that impact current methods to test for COVID-19 that require using biological materials (antibodies) to detect the virus. PCR, Polymerase Chain Reaction, tests are expensive, generally require unpleasant nasal swabs, and rely on laboratory analysis to return results, and as we've seen of late this has completely overwhelmed the system resulting in several days to get results. Rapid antigen tests are faster but significantly less accurate, are also somewhat unpleasant (at least to me) and diminish in effectiveness as the virus mutates. Compare that to a handheld breathalyzer that could be used multiple times by the same user for easier, less expensive, less wasteful testing. Sixth Wave envisions its unit would have a disposable biosensor (cartridge) that is simply replaced upon a positive detection or after a predetermined sampling time if there is no positive detection.

Personally, I really hope that Sixth Wave can get this technology to the finish line as I think it would be a great benefit to society as a whole. Then there's the potential impact on the share price if they are the ones to come up with the de

facto, go-to gadget for simple, convenient and inexpensive virus testing. With a current market cap of C$27 million and trading almost at its all-time low share price, this could be quite the game-changer for Sixth Wave Innovations.

Sona Nanotech is seeking U.S. FDA approval for its rapid COVID-19 saliva test

written by InvestorNews | January 20, 2022

Much to my chagrin, it appears this damn COVID virus is refusing to let us be. I guess one positive take-away is that we are learning about the Greek alphabet. I can’t say I was familiar with omicron prior to last Thursday, but all of a sudden it’s the most talked about Greek letter in the world. Along those lines it would appear we aren’t going to shed this virus anytime soon (pun intended), so we are going to have to adapt to it so we can get back to as normal a lifestyle as possible. In my opinion, an easy to administer, reliable rapid test could go a long way towards returning us to our normal day-to-day activities while still giving confidence to all those around us that they are in a safe environment. Obviously, it would have to be more convenient than the one where it seems like they are trying to swab brain tissue behind your eyes, because I know I certainly won’t be signing up to do that every day or two. But a simple saliva swab in the mouth, and 15 minutes later you’ve got the green light to do whatever, seems like a reasonable solution.

There are a lot of companies out there that are pursuing this holy grail of a reliable rapid test, but the one I want to talk about today is developing a saliva-based rapid screening test, for Coronavirus, derived from a bunch of other interesting applications for their technology. The company is Sona Nanotech Inc. (CSE: SONA | OTCQB: SNANF), and they have developed multiple proprietary methods for the manufacture of various types of gold nanoparticles and are experienced in the development of rapid, lateral flow assay, in-vitro, diagnostic tests. The Company is also involved in research and development into other potential applications for its proprietary technologies.

What makes Sona (the Hindi word for gold) unique is that it has patented, **non-toxic**, metallic gold nanorods (GNRs) which are small particles whose surface plasmon resonance (SPR) frequencies can be altered by modifying their length and width, giving them properties useful in a host of applications, including diagnostics, optical biomedical imaging, and photothermal therapies, to name a few. I recognize that's a lot of science stuff but the key term in the last sentence to focus on is non-toxic. One of the major barriers in the application of GNR based materials is the presence of cetrimonium bromide (CTAB), a cytotoxin. After years of hard work, Sona was able to perfect the process and develop the ability to synthesize large volumes of high-quality gold nanorods free of CTAB. This opened the door to using GNRs as a drug delivery vehicle and for photothermal therapy.

If you check out the Sona Nanotech website there is some pretty fascinating stuff, even if I don't understand a bunch of it. However, we'll focus on the investment thesis for today. It should be somewhat obvious that a rapid COVID test is what is of greatest importance right now. On November 8th the Company

announced a U.S. partnership and preliminary evaluation results for its COVID-19 saliva test. Sona entered into a binding licensing agreement with U.S. FDA registered Arlington Scientific Inc. of Springville, Utah, to bring Sona's rapid saliva COVID-19 test to market. The market was pretty excited about this news as the stock popped 87% the day after the press release, and that was before anyone was aware of the COVID omicron variant. If an FDA Emergency Use Authorization is granted, Arlington will coordinate manufacturing and distribution of the test in the U.S. exclusively on a profit-sharing basis. In other words, Arlington will make it and market it, meaning almost zero cost for Sona to move the product forward (Sona is on the hook for providing key biological materials for testing). This is a very important deal for a company that currently has no revenue and is pretty much focused on R&D.

There are plenty of other developments going on at Sona like a concussion test for mild traumatic brain injury that aims to detect a series of biomarkers enabling the screening for mild concussions, and a bovine tuberculosis test, which is being developed with a consortium of companies as part of a Canada/UK industrial research and development program. Both of which could be future sources of income for the Company but not likely on the scale of a rapid COVID test. Another interesting application of their technology is a possible advancement of radiation therapy in cancer cells by focusing on the treatment. Evidence suggests that GNRs could be more effective at killing tumors with less or no adverse reactions to healthy cells given that traditional methods of this type of treatment involve non-selective irradiation, damaging the normal tissue surrounding a tumor. Although maybe we'll save the discussion of these applications for another day.

For now, Sona could be in the right place at the right time.

After some initial missteps, they have fine-tuned their rapid, saliva, COVID-19 test just in time for the next variant of concern to come along. With just over 65 million shares outstanding they have a market cap of roughly C$28 million based on yesterday's close. A near-term catalyst could prove to be a better shot in the arm for Sona Nanotech than any vaccine.

Sixth Wave hits the market with MIP coatings and sensors for the biodetection of viruses and bacteria

written by InvestorNews | January 20, 2022
Sixth Wave Innovations Inc. (CSE: SIXW | OTCQB: SIXWF) ("Sixth Wave") is a nanotechnology company focused on the 'detection and extraction' of target substances at the molecular level using specialized molecularly imprinted polymers (MIPs).

Sixth Wave's nanotechnology uses MIPs to detect and extract almost any target molecule

Source: Sixth Wave Innovation website – About MIPs

There is a huge list of potential industries that can benefit from Sixth Wave's MIP technology; however key areas of interest for now for Sixth Wave are health (rapid COVID-19 detection), cannabis production (cannabinoid purification), security, gold

and lithium extraction.

AMIP COVID-19 test with improved sensitivity

Announced on August 19, 2021, Sixth Wave has improved the sensitivity and capability of its leading-edge nanotechnology AMIP to detect the presence of the COVID-19 virus at levels below 1,000,000 virus particles/mL. Dr. Garrett Kraft, Vice President of Innovation at Sixth Wave, stated: "Hitting this level of detection is a huge achievement for us. With this technical milestone, we are fulfilling the sensitivity requirements for many of our intended end-use applications for high throughput screening."

Note: Accelerated Molecular Imprinted Polymers (AMIPs) are rapid acting MIPs.

The clinical significance of a more sensitive test is the potential to detect COVID-19 earlier and in patients that are asymptomatic, when lower levels of the virus may be present. According to Grandview Research, the global COVID-19 diagnostics market size was estimated at USD 84.4 billion.

Sixth Wave is quickly moving through a program of development and scale-up milestones toward a wide range of AMIPs virus rapid detection devices.

MIP coatings and sensors for biodetection of viruses and bacteria

Sixth Wave recently announced that they have filed for a patent for their MIP coatings and sensors for biodetection. The patent focuses on the synthesis and processing of MIPs containing detection elements for viruses and bacteria. Sixth Wave state: "The patent will be solely in the name of Sixth Wave, who will have exclusive ownership of the IP, subject to a reasonably

agreed-upon license fee. The work with York University is an expansion of Sixth Wave's efforts with the AMIP product line and focuses on detecting both viral and bacterial-based pathogens in fluid samples."

This could potentially be a huge business one day for Sixth Wave given the global need for rapid detection of viruses and bacteria.

More about Sixth Wave

Sixth Wave has collaborated for research and testing with some of the largest entities in the chemical, resources, education, security, defense and medical sectors. Sixth Wave's systems are all patented or patent pending in 40+ countries worldwide.

Sixth Wave's key product names are IXOS® (a line of extraction polymers for the gold mining industry), Affinity™ (for the cannabis industry), and AMIPs (for sensitive and rapid COVID-19 testing). Sixth Wave recently announced an Affinity system has been shipped from the contract manufacturer and is on the way to Sixth Wave and then onto the first customer, Green Envy Extracts.

Other prospective products in development include a wide range of AMIPs Virus/Bacteria rapid detection devices, Personal Protective Equipment applications such as SIXW's Smart Mask™ (see news dated May 15, 2020), and smart clothing, airborne sensors, breathalyzers, ELISA-based technologies, cartridge/lateral flow designs, and others.

Closing remarks

Sixth Wave is at an exciting stage as the Company rolls out the commercialization of its Affinity™ cannabinoid purification system, IXOS® gold mining extraction technology, and soon plans

the rollout of their AMIPs virus rapid detection devices and other products.

The idea of one day being able to potentially use a Sixth Wave MIP sensor to rapidly detect viruses and bacteria pathogens is quite amazing, and if it happens, would be a significant advancement for medical diagnosis.

Trading on a market cap of just C$30 million, stay tuned for more developments from this fast-moving company.

Fully funded with strong IP Portfolio, Hemostemix marches forward towards FDA Phase II Clinical Trial Completion

written by InvestorNews | January 20, 2022

Hemostemix Inc. (TSXV: HEM | OTC: HMTXF) continues to move forward with its FDA Phase II clinical trial program of its blood-derived, stem cell therapeutics product (ACP-01) at sites in the United States and Canada.

ACP-01 is being tested as a treatment for medical conditions such as Critical Limb Ischemia (CLI). CLI is a blockage in the arteries, which reduces blood flow and oxygen in the limbs, and can cause conditions such as severe pain in the feet or toes, wounds that won't heal, and if left untreated, could result in the amputation of the affected limb.

Although ACP-01 has been used to treat over 500 patients, currently it is part of a Phase II clinical trial of its safety and efficacy in patients with advanced CLI who have exhausted all other options to save their limb from amputation.

Recently, Hemostemix announced an update on the ACP-01 clinical trial as the company believes that all follow-up visits of the enrolled trial subjects should be completed by March 31, 2021.

In the clinical trial, 65 subjects were enrolled and randomly 2/3 of the participants received ACP-01 with the other participants receiving a placebo. Once the last follow-up appointment is completed and trial data has been analyzed, the company will provide an update. We expect this information in late April or early May.

The earlier clinical trials have shown that ACP-01 is safe and effective in the treatment of CLI. The data collected will include treatment success or failure, pain, quality of life, and any adverse effects.

Signs "BREAD" Contract with Canadian Department of Foreign Affairs

In January, Hemostemix also announced it signed the Building Relationships Entrepreneurs & Dealmakers (BREAD) contract with the Department of Foreign Affairs, Trade and Development.

The BREAD agreement is a Canadian government initiative to assist high-potential, biotech-focused Canadian Small and Medium Enterprises and is designed to accelerate the growth of Canadian biotechnology companies.

The Trade Commissioner Service (TCS) department, within the Department of Foreign Affairs, helps Canadian companies grow into international markets by assessing market potential,

finding qualified partners, and resolving problems.

Hemostemix is working with the TCS to source qualified partners to license ACP-01 in foreign markets including the United States, Japan, and South Korea,

Hemostemix – a Platform for Stem Cell Therapies

Hemostemix's stem cell therapy platform uses the patient's own blood to harvest the stem cells and the treatment helps to restore circulation in damaged tissues.

Advantages with Hemostemix's process include the use of blood, which is safer and less invasive than other methods, and since you are using the patient's own blood, there is no immune rejection.

ACP-01 has the potential to treat other conditions such as Angina, Ischemic & Dilated Cardiomyopathy, and Peripheral Artery Disease. Currently, Hemostemix is preparing for Phase 2 trials for the treatment of Angina and is seeking joint-venture partners to fund other Phase 2 trials.

The company is also investigating the use of ACP-01 to treat patients hospitalized with COVID-19 that exhibit low oxygen levels and significant inflammation.

Hemostemix has also developed NCP-01 (Neural Cellular Precursor) from blood with the potential to treat neurological conditions such as Alzheimer's, Amyotrophic Lateral Sclerosis ("ALS"), Parkinson's, spinal cord injuries, and stroke-related issues. NCP-01 is currently in the R&D phase and is pre-clinical.

Fully Funded for the Year

In December 2020, Hemostemix raised $2.75 million at $0.30 per unit that comprised of a share and a warrant priced at $1.00 for

a period of 12 months. Proceeds from the offering are expected to be used to pay for various corporate expenses and to fund the clinical trial costs.

In addition to the cash on hand, Hemostemix has a strong intellectual property (IP) portfolio of 91 patents.

To generate some cash flow, Hemostemix plans to ramp up the revenue side of the business by reinstating its compassionate care revenue stream in the United States.

Final Thoughts

Stem cell treatments have been used for over 30 years to treat people with cancer conditions such as leukemia and lymphoma and earlier trials of Hemotemix's ACP-01 have shown positive effects in the treatment of CLI.

Factors that increase the risk of CLI include diabetes, high cholesterol levels, high blood pressure, obesity, or smoking. Unfortunately, most of these factors are increasing at an alarming rate. Treatment for these conditions has a billion-dollar market potential.

Currently, Hemostemix has a market cap of only C$25 million with similar-sized biotech companies focusing on CLI trading much higher.

As a company shifts from FDA Phase II to Phase III clinical trials, we expect the share price and market cap to shift higher to reflect the potential of ACP-01.

Sixth Wave Hits Key Achievement for a New & Innovative Rapid Detection System for COVID-19

written by InvestorNews | January 20, 2022

Yesterday, Sixth Wave Innovations Inc. (CSE: SIXW | OTCQB: ATURF | FSE: AHUH) announced a key achievement in the development of its advanced technology for the rapid detection of the virus that causes COVID-19.

Using nanotechnology, Sixth Wave focuses on the extraction and detection of target substances at the molecular level using specialized molecularly imprinted polymers (MIPs).

The company creates a molecular imprint in the polymer for the target substance and then can detect its presence based on the specific size, shape, and/or chemistry of the target.

Announcement of Initial Imprinting

Sixth Wave made a breakthrough announcement yesterday that the research team successfully completed the first molecular imprint of the SARS-CoV-2, the virus that causes COVID-19, using the company's patent-pending process and technology called Accelerated Molecular Imprinted Polymers (AMIPs™).

Over the next few weeks, this imprint will now go through a series of tests at the University of Alberta to determine the accuracy of the virus detection. The imprint process will be modified until a precise process is determined that results in a polymer with an "exceptional accuracy" in identifying the virus.

Once the polymer has reached its efficacy targets, it can then form the basis of various virus detection products including airborne detection tools, hand-held devices, and wearables.

One simple application is adding the polymer to a mask. The mask can then filter out any SARS-CoV-2 virus that tries to pass through the mask and can also change color if the user's exhale contains the virus. A fast, effective and easy way of detecting the COVID-19 virus.

Dr. Jonathan Gluckman, President and CEO of Sixth Wave, commented,

"*With the completion of the initial imprint, we've demonstrated the process of making this polymer. More importantly, we now have an AMIPs prototype customized for SARS-CoV-2, which we can run through a battery of tests, optimizing its design with each successive imprint version. At the end of this process, we aim to have a Definitive Imprint with an extremely high affinity, or attraction, to the Virus, with clinically relevant detection levels and reliability.*"

Advantages of Sixth Wave's Technology

Currently, COVID-19 testing is expensive and often requires laboratory work, expensive equipment, well-trained technicians, and can take days to get accurate results. In addition, the tests use biological materials that are affected by climate conditions.

Sixth Wave's testing solution has many advantages over a lab-based test – it is simpler, faster, and does not require any skilled person to administer. If the polymer is implemented in a breathalyzer, simply breathe into the device and it will tell you if your breath contains the SARS-CoV-2 virus.

In addition, the polymer can be easily replicated at a low cost, it doesn't need to be stored at low temperatures, and the same process can be used to detect other viruses or diseases.

Technology Already Used in Gold and Cannabis Processing

Sixth Wave's technology has already been used in the gold mining industry. In gold extraction, Sixth Wave's product is called IXOS® and is a line of polymers formulated for the extraction of gold from cyanide leach solutions.

In September 2020, Sixth Wave announced that it signed a non-binding Letter of Intent for the trialing of Sixth Wave's IXOS® purification polymer at Rio2's (TSXV: RIO | OTC: RIOFF | FSE: 1SB) Fenix Gold Project in Chile.

In the cannabis extraction industry, Sixth Wave's Affinity™ system can lower the cost by streamlining the process of capturing and extracting cannabinoids (THC and CBD) while still yielding high purity distillates and isolates.

In April 2020, Sixth Wave signed a deal with Green Envy for the purchase of at least three Affinity™ extraction units. Green Envy is a cannabinoid extraction company specializing in the production of high-quality concentrates, distillates, and edibles. Green Envy will integrate the Affinity™ units into its existing process platform for the production of full-spectrum distillates.

Sixth Wave expects to recognize revenue from this sale starting in the first fiscal quarter in 2021.

Final Thoughts

Sixth Wave can apply its MIP solutions across a broad range of industries. The company is currently commercializing solutions

in the cannabis and gold mining industries, and is testing an innovative solution for the detection of the virus that causes COVID-19.

Unfortunately, this current health crisis is not the first global pandemic and probably won't be the last but Sixth Wave's technology could provide a faster and cheaper way for virus detection this year.

Sixth Wave currently trades at $0.35 with a Market Cap of $ 30.7 million.

With Cancer-Testing Telehealth Platform on Track for Q1 Launch, StageZero Shareholders Await Covid-19 Testing-Related Revenue Results

written by InvestorNews | January 20, 2022
StageZero Life Sciences Ltd. (TSX: SZLS | OTC: GNWSF | FSE: 61N) is a life science and telehealth company that is focusing on launching Aristotle®, which is its next-generation, proprietary clinical test for the early detection of cancer. From one blood sample, it can screen for 10 cancers.

The company is on track to commercially launch the Aristotle® offering in the first quarter of 2021. In advance of the launch, the company has doubled in size since March 2020 and recently

raised C$7.2 million to load up the treasury.

With its planned rollout of Aristotle®, StageZero has built a fully integrated telehealth platform that supports its cancer diagnostics program. With the current stay-at-home orders imposed by governments, telehealth has emerged as a viable alternative to access health care and diagnostic services.

Aristotle® Built on a Proven Platform

Aristotle® is built on StageZero's proprietary Sentinel Principle Technology and validated on over 10,000 patients.

Aristotle® is literally based on 20 years of development work and building up the company's experiences with other solutions, such as ColonSentry®, a test for colorectal cancer, which was launched in 2019.

To accommodate the step-function growth with its new service, StageZero's lab has been expanding in both people and equipment to launch the new offering as well as to accommodate its recent Covid-19 testing service.

Cancer Diagnosis – a Billion Dollar Market

The continued rise of cancer cases and deaths has shifted the attention towards the adoption of early detection and diagnosis techniques for cancer, to help lower health costs and increase survival rates.

According to a recent industry report, the Cancer Diagnostics market was valued at US$144 billion in 2020 and is forecasted to reach US$192 billion by 2024, growing by 7.5% annually.

One of the largest growth segments is diagnostic solutions aimed at cancer detection, cardiovascular disease, or eye issues.

Quickly Added Covid Testing in 2020

Last year, to help out during the Covid-19 crisis, StageZero launched a Covid-19 testing service, offering both the serology point-of-care and lab-based polymerase chain reaction (PCR) tests.

StageZero's Covid-19 testing solution helped to generate revenue of US$1.61 million in the third quarter of 2020. The company forecasted that Covid-19 testing-related revenue should be higher in the fourth quarter of 2020 and even higher in the first quarter of 2021.

The company found success by partnering with over 55 groups including Mercer, UDoTest, and the City of Alpharetta, to name just a few.

For Covid-19 testing, speed and accuracy are paramount and the telehealth infrastructure that StageZero put in place is paying off. The tests are done, packaged up, sent in overnight, processed the next day, and reported back to the patient.

Saliva PCR Test to Help Travel Industry Rebound

Last October, StageZero announced that it launched a saliva-based PCR test that makes it easier for patient sample collection.

The saliva-based PCR test targets the home diagnostic market and for use by companies and communities in remote areas where Covid-19 testing is more challenging.

Travel announcements:

- On January 13, Ichor Blood Services and StageZero launched a Covid-19 testing program for Canadians returning home from the U.S.

- Last year, StageZero was selected by the Government of Barbados to provide Covid-19 testing services to travelers visiting Barbados from Canada and the U.S.
- Also announced last year, StageZero reported the initiation of testing for travel to China with a Canadian partner.

In the case of the Ichor-StageZero partnership, this testing program allows travelers to take a lab-quality Covid-19 test kit with them to the U.S. and complete their witnessed test remotely prior to returning home.

Final Thoughts

StageZero is a cancer testing company, capitalizing on its telehealth platform, and should benefit financially in 2021 from the rollout of Aristotle® that is planned for this quarter.

In the meantime, the company has scaled up to meet the demand for Covid-19 testing and this revenue should continue to grow quarter-over-quarter in 2021 as the Aristotle® service rolls out.

With the growing need for both Covid-19 and cancer testing, revenue could double for the company this year.

StageZero closed the week at $1.09, up 6% on the day, and currently has a Market Cap of almost $65 million.

Revenue Forecasted to Triple as Valeo Benefits from Last Year’s Successes

written by InvestorNews | January 20, 2022

Valeo Pharma Inc. (CSE: VPH | OTC: VPHIF |FSE: VP2) is a specialty pharmaceutical company and its revenue is expected to triple this year as it benefits from last year’s licensing successes.

For Fiscal Year 2020, ending October 31, the company forecasted revenue around C$8.0 million but projects FY2021 revenue in the C$20-25 million range.

Currently, one analyst covers the company, and she estimates FY2020 revenue of C$8.0 million, FY2021 revenue of C$24.0 million, and FY2022 revenue of C$45.0 million, showing an impressive revenue growth trajectory for the company.

Valeo’s Business Model

Valeo focuses on acquiring, in-licensing, and commercializing pharmaceutical products with a primary focus on three areas:

1. Neurodegenerative diseases, such as Multiple Sclerosis, Parkinson’s Disease, and Schizophrenia
2. Cancer treatment (Oncology), such as Soft Tissue Sarcoma and Ovarian Cancer
3. Hospital products, such as pain management, anti-infectives, and critical care

The company partners with pharmaceutical companies that have expertise in Research & Development and Manufacturing while Valeo concentrates on the regulatory requirements to get a drug

approved in Canada and then focuses on marketing the product.

Valeo benefits from commercializing a drug without the risk of product development.

Valeo now has 10 products approved for marketing in Canada with another three products in the regulatory process, and seven additional hospital products licensed but not yet approved. (See the Product Portfolio and Pipeline table below.)

Valeo searches for products already licensed in other well-regulated jurisdictions, such as the European Union or the United States, with $5 million to $20 million of annual revenue potential in Canada that is below the revenue threshold of larger pharmaceutical companies thereby carving out a profitable niche.

Recent Commercial Pipeline Additions

Valeo's successes last year included:

- Ametop™: Licensed the Canadian rights to Ametop™ from Alliance Pharma and subsequently received approval from Health Canada for the transfer of commercial rights to Ametop™.
- Amikacin: Valeo announced the approval of Amikacin in Canada; Amikacin is an antibiotic used within a hospital setting.
- Ethacrynate Sodium: Valeo received FDA approval for Ethacrynate Sodium and launched the drug into the U.S. market. It was the first U.S. regulatory approval received by Valeo. Ethacrynate Sodium is administered to treat fluid retention and swelling that is caused by medical conditions such as congestive heart failure, acute pulmonary oedema, or renal oedema.
- Hesperco™: Entered into an agreement with Ingenew Pharma

regarding Hesperco™, a supplement to support the immune system. In one year, Valeo submitted a natural product license application for Hesperco™ to Health Canada, received approval, and announced that Hesperco™ has started shipping.

- Onstryv®: It announced the launch of Onstryv® for Parkinson's disease and the inclusion of Onstryv® on the list of medications covered in Quebec.
- Redesca™: Valeo received Health Canada approval for the use of Redesca™, an anticoagulant, for the prevention of blood clots. The company expects the commercial launch to impact the first half of 2021 revenue and forecasts $30 million in annual sales once fully marketed.
- Yondelis®: Signed a licensing agreement with Pharmamar to commercialize Yondelis® in Canada and received approval from Health Canada for the transfer of commercial rights to Yondelis®. Yondelis® is a treatment option for soft tissue sarcoma, a form of cancer.

Redesca™ Update and COVID-19 Application

On January 25, Valeo reported that Redesca™ received a positive recommendation for public reimbursement in the province of Quebec. The drug has been placed on the list of medications covered by Quebec's public drug insurance plan for the prevention and treatment of thromboembolic disorders.

Redesca™ received Health Canada approval last year for sale in Canada and the company is planning to launch Redesca™ during the first half of 2021. Valeo intends to pursue discussions to get Redesca™ included with other provincial drug insurance plans.

Redesca™ gained a spotlight last year when the drug was used to help patients suffering from severe acute respiratory infections caused by COVID-19 infections. Even though it was not a vaccine or COVID-19 treatment, treating the patients with Redesca™ to

prevent blood clots, improved the patient survival outcomes.

Final Thoughts

Even after an impressive 230% stock price gain over the past year, shares in Valeo are trading around C$1.20 and below their recent high of $1.86, with the potential to move higher as the company reports the results from its commercialization efforts.

With a Market Cap of C$78 million and an Enterprise Value of C$82 million, Valeo trades at a forward EV/Revenue of 3.4x based on the analyst's FY2021 estimate.

Valeo Pharma's Product Portfolio and Pipeline

Source:

ZEN Graphene Solutions moves towards commercialization of virus-killing mask

written by InvestorNews | January 20, 2022

ZEN is collaborating with partners to develop virucidal face masks and PPE

Back in May 2020 InvestorIntel wrote about the very exciting development of masks and other personal protective equipment (PPE) that not only protect the wearer, **but actually kill viruses on contact**. to help . Since then the development of a

“graphene virucidal ink face mask” and PPE has been progressing nicely in the fight against COVID-19.

In late July 2020 ZEN Graphene Solutions Ltd. (TSXV: ZEN) (“ZEN”) reported that research teams at a number of personal protective equipment (PPE) manufacturers are collaborating with ZEN to incorporate ZEN’s virus-killing graphene ink into commercial products, including masks, gloves, gowns and other clothing. This follows ZEN’s promising testing results from the University of Western Ontario’s ImPaKT Facility, biosafety Level 3 lab.

ZEN has synthesized a ‘silver nanoparticles functionalized graphene oxide ink’ that has been documented by previous researchers to kill earlier versions of coronavirus. Silver is well known to be a potential virucidal agent.

Photo: iStock

In July ZEN reported in a news release that the company “continues to optimize its proprietary formulation for dosage and delivery mechanism for highest antiviral impact. **The next phase of testing is currently underway** at the ImPaKT Facility and includes a preferred mask fabric, from one of our collaborators, coated in ZEN’s virucidal ink exposed to and tested against the COVID-19 virus.”

Dr. Francis Dubé, CEO of ZEN, commented that “Based on results so far and our discussions with the team at Western, we are quickly moving to integrate our material into commercial products with partners who wish to increase the level of COVID-19 protection their products currently offer.”

Given the world needs at least 3.5b N95 face masks to fight COVID-19, the potential demand for ZEN’s graphene based

virucidal ink face mask could be enormous. If the new virucidal mask captured just 10% market share of the 3.5 billion masks needed that would mean manufacturing and selling ~350 million masks. Or even if just made mandatory for health care workers globally, the market would be very large, as there is an estimated 59 million health care workers worldwide. Each health care worker would need a number of masks per year. The revenue opportunities could be enormous if ZEN's graphene based virucidal ink is licensed on a per unit basis. Added to this would be the potential for use in other PPE. For a small company such as ZEN the potential revenue upside could be highly significant.

Tests are still underway to improve and prove the effectiveness of the virucidal masks, but CEO Dubé's public comments about integrating ZEN's material into commercial products with partners indicates a positive outcome is looking increasingly possible.

Last week ZEN announced that it will "report shortly on significant progress being made in multiple programs, one of which has resulted in the preparation of a patent filing that is central to ZEN's business plan." Zen also announced receiving **significant funding grants**: "two NSERC Alliance COVID-19 project grants, a Mitacs Elevate Postdoctoral Fellowship grant, and two Mitacs Accelerate grants for a total of $355,000 to its university collaborators," which increased ZEN's total research and development budget for the next 12 months to over $1.4M.

Graphene's potential

Graphene is a new wonder material with incredible potential to be commercialized in a huge number of products. These are as diverse as graphene coatings that can greatly improve corrosion resistance, increase strength, reduce friction and can be

hydrophobic reducing ice formation (aerospace and aircraft industries). As a diesel/jet fuel additive it can improve fuel economy and reduces greenhouse emissions. It is also useful in electromagnetic shielding and electrostatic dissipation, desalinization membranes and low-energy dehumidification, heavy metal scavenging and removing industrial contamination, photovoltaics, displays & biomedical applications using graphene quantum dots, virucidal inks, as a material enhancement (clothes, tire strengthener, concrete additive), hydrogen storage and production, and advanced batteries. Samsung is developing an advanced graphene phone battery. Graphene is super lightweight and also strengthens aluminum, rubber, plastics and other materials, making its list of applications almost endless.

The graphene market is forecast to grow at a 39-45% CAGR this decade

Source: Company presentation

Closing remarks

In addition to its advanced application projects, **ZEN owns a graphite mine** and has commenced small scale graphene production from their facility in Canada, and has numerous other potential uses to commercialize their graphene product. At the current market cap of just C$31m the stock is not yet pricing in any chance of significant success in the virucidal mask and PPE market, or in the larger graphene market. This is good news for investors looking for underappreciated and early stage stocks. If ZEN is able to successfully commercialize its viricudal mask/PPE or other graphene products, it would be a game-changer.